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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,808	01/26/2007	Olivier Guerret	FR-AM 1979 NP	3993
Steven D Boyd Arkema Inc 2000 Market Street 26th Floor Philadelphia, PA 19103				
EXAMINER FERGUSON, LAWRENCE D				
ART UNIT 1794				
PAPER NUMBER				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/550,808

**Applicant(s)**

GUERRET ET AL.

**Examiner**

Lawrence D. Ferguson

**Art Unit**

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE-08)
- Paper No(s)/Mail Date 11/21/05
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The references disclosed within the information disclosure statement (IDS) submitted on November 21, 2005, has been considered and initialed by the Examiner.

### ***Claim Rejections – 35 USC 112/35 USC 101***

2. Claims 16-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 16-20 and 22 provide for the use of a film, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 16-22 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

***Improper Multiple Dependent Claims***

3. Claims 6-21 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. should refer to other claims in the alternative. See MPEP § 608.01(n). If the claims are not placed in proper dependency, they will be withdrawn and not further treated on the merits.

***Claim Objections***

4. Claims 5-6 are objected to because of the following informalities: The claims do not end in a period. Please correct.

***Claim Rejections – 35 USC § 103(a)***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akio et al (JP 2002194167 machine translation).

Akio discloses a film comprising 95% by weight of at least one block copolymer, which comprises acrylic monomers along with a polyfunctional inorganic radical

comprising potassium, which has a molar mass of 39.1 (abstract, paragraph 0040, claim 1). 0 to 5% by weight of at least one polymer A is interpreted as having 0% by weight of polymer A. Although Akio does not explicitly show the structure of core (I), because the reference discloses a film comprising a similar inorganic radical with molar mass of greater than 14, it would have been obvious to one of ordinary skill in the art for the core(I) to have a structure similar to the Ia or Ib, absent any evidence to the contrary.

Concerning claim 2, the instant claims only require an organic or inorganic radical with a molar mass of greater than or equal to 14, where for examination purposes the examiner has selected the inorganic radical, which renders the organic radical as not being required by instant claims 1 and 9-10.

Concerning claim 3, Akio discloses the film comprises zinc (paragraph 0073) which functions as a polyfunctional inorganic radical.

Concerning claim 4, the phrase, "obtained according to the controlled polymerization process consisting of the polymerization...and recovery of the copolymer formed" introduces a process limitation to the product claim. "For purposes of examination, product-by-process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. See MPEP 2113. In the present case, the recited steps imply a film structure starting from a composition having from 95-100% by weight of at least one block copolymer corresponding to the formula  $(A)_m-(B)_n$ -I. The reference suggests such a product because Akio discloses a film comprising 95% by weight of at least one block copolymer, which comprises acrylic monomers along with a polyfunctional inorganic radical comprising potassium, which has a molar

mass of 39.1 (abstract, paragraph 0040, claim 1). 0 to 5% by weight of at least one polymer A is interpreted as having 0% by weight of polymer A.

Concerning claims 5-6, because alkoxyamine and the control agent are only required for the method of making the film, these materials are not required in the actual product of the claimed invention.

Concerning claim 7, the film comprises alkyl acrylates with an alkyl chain comprising butyl acrylate (paragraph 0009).

Concerning claim 8, because A is not required by claim 1, A<sub>0</sub> is not required in the claimed invention.

Concerning claims 11-12, because the film of Akio comprises a similar material for the B block and is used in a film, it would have been obvious to one of ordinary skill in the art for the B block to exhibit a T<sub>g</sub> of less than 0°C and to exhibit elastomeric domains, where obtaining the claimed value of a size of less than 50nm would have been obvious based on optimization through routine experimentation to function properly in the film.

Concerning claim 13, the film has a thickness of about 1-300 micrometers (paragraph 0071).

Concerning claim 14, because the film of Akio comprises similar materials with a similar purpose, it is inherent for the film to have a modulus of elasticity, a haze and an elongation at break, where obtaining the claimed values would have been based on optimization through routine experimentation to function properly in the film.

Concerning claim 15, the film additionally comprises paints and pigments such as titanium oxide (paragraph 0073).

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample, can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Lawrence Ferguson/  
Patent Examiner, Art Unit 1794

/David R. Sample/  
Supervisory Patent Examiner, Art Unit 1794